

Mineral Industry Surveys

For information, contact:

Thomas S. Jones, Silicon Commodity Specialist

U.S. Geological Survey

989 National Center

Reston, VA 20192

Telephone: (703) 648-4973, Fax: (703) 648-7757

E-mail: tjones@usgs.gov

Lisa D. Miller (Data)

Telephone: (703) 648-7973

Fax: (703) 648-7975

MINES FaxBack: (703) 648-4999

Internet: <http://minerals.usgs.gov/minerals>

SILICON IN MAY 2000

In **May**, domestic shipments and production of silicon ferroalloys plus metal, excluding silvery pig iron, were estimated to have decreased by about 9% and less than 1%, respectively, compared with the corresponding figures for the prior month, according to the U.S. Geological Survey. Accordingly, the average daily rate for shipments decreased by about 12% to the lowest level in at least the past 28 months. Total producer stocks were estimated to have increased by about 2%.

April trade data are included in this report. Trade data for May were unavailable at the time of publication and will be included in a subsequent report.

In the United Kingdom, Dow Corning Corp. officially celebrated completion of an expansion that has approximately doubled production capacity for methyl chlorosilanes (MCS) at its

Barry, Wales, plant. Annual capacity for MCS at Barry has been raised to almost 200,000 tons (Chemical Week, 2000). MCS is an intermediate for the production of silicones, which account for a significant proportion of silicon metal consumption.

Published prices for silicon-based commodities are listed below (**Source: Platt's Metals Week**). Ferrosilicon prices are based on the contained weight of silicon. All prices are posted in cents per pound.

Reference Cited

Chemical Week, 2000, Dow Corning opens U.K. plant, plans investment in Asia:
Chemical Week, v. 162, no. 20, May 17, p. 20.

Dealer Import Prices

	<u>50% Ferrosilicon</u>	<u>75% Ferrosilicon</u>	<u>Silicon Metal</u>
May 3	43.0-47.0	36.5-39.0	58.0-59.0
May 10	43.0-47.0	36.5-38.0	58.0-59.0
May 17	43.0-47.0	36.0-38.5	58.0-59.0
May 24	43.0-47.0	36.0-38.0	56.0-58.0
May 31	43.0-47.0	36.0-38.0	56.0-58.0

TABLE 1
U.S. PRODUCTION, SHIPMENTS, AND PRODUCER STOCKS OF SILICON ALLOYS AND METAL 1/ 2/ 3/

(Metric tons)

Material	2000				
	Gross production 4/		Net shipments		Stocks, May 31
	May	Year to date	May	Year to date	
Ferrosilicon:					
25%-55% silicon 5/	20,800	101,000	13,600	71,500	44,400
56%-95% silicon	7,750	44,400	5,200	42,900	29,300
Silicon metal:					
Excludes semiconductor grades	16,000	82,800	16,700	81,100	7,660

1/ Data are rounded to no more than three significant digits.

2/ Includes U.S. Geological Survey estimates.

3/ Data for silvery pig iron (less than 25% silicon) withheld to avoid disclosing company proprietary data.

4/ Ferrosilicon production includes material consumed in the production of miscellaneous silicon alloys.

5/ Includes miscellaneous silicon alloys.

TABLE 2
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN APRIL 2000 1/ 2/

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
More than 55% silicon:						
Canada	250	150	\$188,000	1,520	915	\$1,110,000
Costa Rica	--	--	--	3	2	2,790
Jamaica	--	--	--	3	2	3,100
Korea, Republic of	219	132	183,000	665	399	557,000
Mexico	270	180	221,000	1,600	1,040	1,360,000
Total	739	462	592,000	3,790	2,360	3,040,000
Other ferrosilicon:						
Australia	97	48	76,500	416	208	329,000
Canada	523	262	339,000	2,140	1,070	1,410,000
China	--	--	--	594	297	469,000
Germany	--	--	--	33	17	55,800
India	95	48	81,400	745	372	594,000
Japan	196	98	166,000	577	288	484,000
Mexico	116	58	151,000	749	375	1,050,000
Norway	--	--	--	36	18	33,400
Taiwan	--	--	--	62	27	171,000
United Kingdom	634	317	473,000	1,830	915	1,400,000
Other (3 countries)	18	9	30,000	70	35	77,400
Total	1,680	840	1,320,000	7,250	3,620	6,070,000
Total ferrosilicon	2,420	1,300	1,910,000	11,000	5,980	9,110,000
Metal:						
More than 99.99% silicon:						
China	21	XX	436,000	59	XX	1,370,000
Denmark	2	XX	166,000	15	XX	1,120,000
France	1	XX	156,000	42	XX	1,320,000
Germany	23	XX	552,000	70	XX	3,040,000
Italy	1	XX	168,000	18	XX	1,280,000
Japan	409	XX	20,000,000	1,270	XX	59,900,000
Korea, Republic of	77	XX	3,080,000	174	XX	9,840,000
Malaysia	8	XX	1,530,000	39	XX	8,040,000
Poland	11	XX	457,000	19	XX	769,000
Taiwan	22	XX	1,000,000	105	XX	4,130,000
Other (26 countries)	28	XX	1,740,000	74	XX	5,750,000
Total	603	603 e/	29,300,000	1,890	1,890 e/	96,600,000
99.00% - 99.99% silicon:						
France	--	--	--	199	197	277,000
India	2	2	2,520	2	2	2,520
Israel	--	--	--	4	4	5,480
Japan	--	--	--	42	42	59,300
Korea, Republic of	2	2	3,200	2	2	3,200
Malaysia	2	2	3,370	2	2	3,370
Mexico	60	60	59,700	569	564	578,000
Total	67	66	68,800	820	813	929,000

See footnotes at end of table.

TABLE 2--Continued
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN APRIL 2000 1/ 2/

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Metal--Continued:						
Other silicon:						
Canada	528	513	\$525,000	1,540	1,500	\$1,570,000
China	19	18	114,000	35	34	207,000
Dominican Republic	--	--	--	13	12	23,100
Germany	305	297	403,000	400	388	528,000
Italy	--	--	--	21	21	38,900
Japan	8	8	82,900	89	86	188,000
Korea, Republic of	25	24	33,300	39	38	56,900
Mexico	74	72	168,000	1,010	978	2,290,000
Philippines	--	--	--	32	31	42,200
Taiwan	75	73	98,900	167	162	221,000
Other (8 countries)	57	55	115,000	129	125	264,000
Total	1,090	1,060	1,540,000	3,480	3,370	5,430,000
Total silicon metal	1,760	1,730	30,900,000	6,180	6,070	103,000,000

e/ Estimated. XX Not applicable. -- Zero.

1/ Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top ten countries.

2/ Data are rounded to no more than three significant digits; may not add to totals shown.

Source: Bureau of the Census.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN APRIL 2000 1/ 2/

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
55% - 80% silicon, over 3% Ca:						
Argentina	--	--	--	53	33	\$50,700
Brazil	60	36	\$57,000	120	74	119,000
France	52	34	86,300	123	77	201,000
Macedonia	--	--	--	3,200	2,400	1,700,000
United Kingdom	12	8	76,200	22	16	142,000
Total	124	79	219,000	3,520	2,600	2,210,000
55% - 80% silicon, Other:						
Brazil	450	386	377,000	4,770	3,670	2,780,000
Canada	399	304	313,000	1,820	1,380	1,390,000
China	5,170	3,900	2,470,000	5,170	3,910	2,480,000
France	56	38	90,600	745	479	1,270,000
Kazakhstan	--	--	--	8,980	6,660	4,930,000
Norway	6,870	5,230	3,890,000	33,800	25,500	19,200,000
Portugal	--	--	--	385	292	105,000
Russia	770	512	246,000	5,970	3,900	2,630,000
South Africa	--	--	--	6,190	4,650	3,370,000
Venezuela	1,330 3/	3,870 3/	2,660,000 3/	8,110	8,960	6,240,000
Others (3 countries)	61	47	127,000	241	180	1,000,000
Total	15,100	14,300	10,200,000	76,200	59,600	45,400,000
More than 90% silicon:						
Canada	--	--	--	17	17	22,500
Magnesium ferrosilicon:						
Argentina	328	149	281,000	788	370	638,000
Brazil	724	289	548,000	2,060	879	1,520,000
Canada	108	54	93,000	201	98	205,000
China	1,220	575	876,000	2,430	1,060	1,720,000
Germany	--	--	--	1	1	4,220
Japan	16	7	33,100	49	22	110,000
Netherlands	--	--	--	20	10	18,400
Norway	1,150	538	1,040,000	3,660	1,700	3,340,000
Total	3,540	1,610	2,870,000	9,220	4,140	7,550,000

See footnotes at end of table.

TABLE 3--Continued
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN APRIL 2000 1/ 2/

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon--Continued:						
Other ferrosilicon:						
Canada	844	303	\$776,000	3,850	1,310	\$3,170,000
Japan	--	--	--	50	878	85,100
Norway	--	--	--	40	6	47,800
South Africa	42	6	39,100	212	59	116,000
Total	886	309	815,000	4,150	2,250	3,420,000
Total ferrosilicon	19,700	16,300	14,100,000	93,100	68,600	58,600,000
Metal:						
More than 99.99% silicon:						
China	(4/)	XX	5,100	(4/)	XX	5,100
Denmark	(4/)	XX	2,180	(4/)	XX	82,000
France	(4/)	XX	32,800	(4/)	XX	32,800
Germany	31	XX	4,100,000	148	XX	18,400,000
Italy	35	XX	1,590,000	141	XX	6,850,000
Japan	43	XX	1,500,000	135	XX	6,280,000
Korea, Republic of	4	XX	171,000	38	XX	667,000
Sweden	2	XX	171,000	4	XX	460,000
Switzerland	--	XX	--	(4/)	XX	50,600
Ukraine	(4/)	XX	6,960	(4/)	XX	6,960
Others (6 countries)	(4/)	XX	17,600	(4/)	XX	54,200
Total	114	114 e/	7,590,000	467	467 e/	32,900,000
99.00% - 99.99% silicon:						
Australia	37	36	42,100	55	55	66,800
Brazil	900	891	1,160,000	6,300	6,250	7,730,000
Canada	800	794	1,070,000	3,290	3,260	4,530,000
China	--	--	--	280	278	240,000
Japan	--	--	--	41	1	53,000
Korea, Republic of	579 3/	575 3/	513,000 3/	1,840	1,820	1,620,000
Norway	5	4	52,200	745	747	1,250,000
Russia	1,440	1,420	1,470,000	3,950	3,840	3,990,000
Saudi Arabia	1,320	1,310	1,280,000	3,440	3,410	3,330,000
South Africa	1,950	1,940	2,250,000	9,170	9,120	10,400,000
Others (3 countries)	6	5	38,900	12	11	80,100
Total	7,030	6,980	7,880,000	29,100	28,800	33,300,000
Other silicon:						
Canada	1,980 3/	1,960 3/	2,670,000 3/	6,610	6,530	8,560,000
China	260	252	207,000	1,260	1,230	1,060,000
France	2	1,979	4,450	2	1,979	4,450
Korea, Republic of	440 3/	433 3/	389,000 3/	680	670	600,000
Norway	--	--	--	18	(4/)	53,000
Russia	2,580	2,520	2,210,000	5,690	5,580	4,670,000
South Africa	164	162	157,000	2,000	1,520	1,230,000
United Kingdom	95	93	126,000	170	167	218,000
Total	5,520	5,420	5,760,000	16,400	15,700	16,400,000
Total silicon metal	12,700	12,500	21,200,000	46,000	45,000	82,600,000

e/ Estimated. XX Not applicable. -- Zero.

1/ Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top ten countries.

2/ Data are rounded to no more than three significant digits; may not add to totals shown.

3/ All or part of these data have been referred to the Bureau of the Census for verification.

4/ Less than 1/2 unit.

Source: Bureau of the Census.